

Le Vigneron

A newsletter for the grape growers and wine makers of Oklahoma

Volume 6, issue 3

July-September 2011

Editor:

- Eric T. Stafne



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Hot Time in the Old Town Tonight

Boy, it sure has been a scorching summer so far. I reported in my July 7th blog entry that for the month of June some locations in the state have been 8 to 10 degrees above normal. And it sure doesn't look to be any better in the next couple of months. In this issue I tackle the divide between grape growers and wine makers in the state — this also was ripped right from my blog (if you are not reading it, why not?). Also in this issue we ask for some assistance to help guide our way and the way of the industry in Oklahoma. On page two there is a request to complete a survey for the Oklahoma Grape Industry Council. On pages 9 and 11 are two more survey opportunities, the first to help the OSU Viticulture and Enology website get better and provide the information you want and need and the second is on a more national scale to help the Grape Community of Practice and eViculture.org get some idea of how we can assist growers. All very important and won't take much of your time. William McGlynn adds a new Technical Tipple to this issue on an Oklahoma wine that looks promising, but holds a dark, sinister secret. I have also included some photos and notes on how vines seem to be recovering (or not) from the devastating February freeze event. Not everything is rosy at the Perkins vineyard, let me put it that way, and I don't think we even know what the full effects are yet. So, go ahead and read on in this third issue of the year — maybe it will even stir up "A Hot Time in the Old Town Tonight".

2011 OSU Grape Management Short Course Update

Eric T. Stafne

The OSU GMSC has motored right along — we have had four classes to date with three left to go. We have had the opportunity to see some classic cold damage symptoms. With the May rains we were able to see disease flare-ups, especially black rot. We have covered a lot of ground since the beginning of the course, but there is still quite a bit left to go. One of the disappointing parts of the class is that there is not enough time to cover all one needs to know. But, we do the best we can and believe we give the student a good foundation for learning more. We have a good crop of students this year who are eager to learn.

eViticulture.org Update

Eric T. Stafne

The web resource, eViticulture.org, has been up and running now for a few months. We keep track of usage through Google Analytics and have found some interesting things so far (although the sample size is too small to make any conclusions yet). So far, eviticulture.org is the entry point of choice to our information by a small margin over extension.org/grapes. The most visited content page is “Starting a Vineyard” followed by “Parts of the Grape Vine: Flowers and Fruit” and “Partes de la Planta de Uva: Brotes”. As you can see one of the most visited pages is in Spanish. In fact, Spanish-speaking countries make four of the top five spots for visitors. Number one is the United States, followed by Spain, Mexico, Argentina, and Chile. Within the U.S., the top state is California, followed by New York, Texas, Oklahoma, and Oregon. I am glad to say that Oklahoma made the top five. The other states are all much larger producers than we are, but it shows our increasing interest in viticulture education. More articles will be added as time goes along, after all, this is a dynamic web resource with all kinds of opportunities for new information. It is also information you can trust. Every article posted on our site is reviewed by two viticulture specialists and you can see who they are as well as the author of the article. If you have not taken a look at the site I encourage you to do so and provide some feedback by going to the back page of this newsletter and follow the link to our survey or just right to it here:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_agiMhFmvr6f4TMO

Oklahoma Grape Industry Council Vineyard Survey

Eric T. Stafne

The Oklahoma Grape Industry Council (OGIC) is trying to get a handle on the number of vineyards in the state with all the related details. Why do they want to know? One reason is to help you sell your grapes to a winery, by pairing those with grapes to those who need grapes. Another is to have hard numbers to help market the industry to the public and to political figures. They want to grow the industry and with your assistance they can move in that direction. So, if you own a vineyard please provide that information to OGIC. The contact information is below:

Jimmy Johns

smokinggrapes@icu.net

(405) 942-3333 or (405) 436-1629

Here are some things they would like to know — is your vineyard **commercial or hobby**? How many **acres** do you have? How many **vines**? Which **varieties**? **Tonnage**? And any other details you think would be useful.

This is extremely important information to the grape and wine industry of Oklahoma. You can help move it in a positive direction by responding to this call for information. I will also put out a call in my blog and email, so if you receive this message multiple times, my apologies, but hopefully it will serve as a reminder.

The Technical Tipple

William McGlynn

The wine on the bench and in the glass in this edition of *Le Vigneron* is a blended red from right here in sunny Oklahoma. A vintner must keep his or her secrets, so we don't know exactly what grapes went into this blend. We do know that it consists primarily of hybrid grapes, including Chambourcin among others. We also know that there might be some white grape wine added as well, to lighten and sweeten the blend. The wine is intended to be enjoyed as a basic table wine, and is so labeled. Suitable for drinking with a light meal, or for sipping with snacks or appetizers, it's meant to be immediately accessible and drinkable. The wine might or might not be sweet and fruity enough to entice the novice imbibor, but it shouldn't scare him or her away either. As a product, this wine is meant to be sturdy and reliable, pleasant and useful but not too flamboyant. In that, it should be a very dependable bottle for a winery to have on its shelves.

Does this wine succeed in its modest but laudable goals? Well, yes and no. More on that in a moment, but first let's look at the objective test results we obtained:

Oklahoma Red Blend

pH: 3.35

Titrateable acidity: 7.1 g/L (0.71%) as tartaric

Free SO₂: 55 ppm

Residual sugar: 0.1% (1 g/L)

Alcohol: 12.9% (Labeled as Table Wine)

Looking at the pH and acidity of the wine, we see that the pH was at the low end of the desirable range for a red wine (~3.3 – 3.5) while the titrateable acidity was well within the desirable range for a red (~6 – 8 g/L). The residual sugar content was about 1 g/L (0.1%), which places it well within the dry range. The alcohol content was 12.9% as measured by Ebulliometer. This falls within the required range for wine labeled as "Table Wine", which is 7-14% alcohol.

The free SO₂ level was measured at 55 ppm. This translates to a molecular SO₂ concentration of about 1.5 mg/L (ppm) at a pH of 3.35, which is well above the standard baseline of 0.6 mg/L molecular SO₂ recommended to insure storage stability.

Overall the fundamental chemistry of this wine appears to be sound.

The subjective impressions:

The wine was extremely clear, with a brilliant ruby red color. Some might argue that it was over-filtered, but the degree of clarity may arguably serve to boost the wine's popular appeal. In any case, the degree of filtration doesn't appear to have stripped the wine's aromas or flavors. The legs were not pronounced – as expected given the moderate alcohol content and relatively low residual sugar concentration. All in all, the wine gave a pleasant appearance in the glass.

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The Technical Tipple, Cont.

William McGlynn

The aroma of the wine was fairly complex, fruity smells predominated, including black cherry, currant, and raisin. There were also some spicy aromas of black pepper and licorice. There were hints of sage and eucalyptus as well, along with an earthy note (more on that below). Altogether the aroma was pleasant, somewhat pungent but not objectionably so.

The wine was fairly well balanced and light in the mouth. It could perhaps have benefited from a bit more body. A somewhat higher residual sugar concentration might have helped this, and also highlighted some of the fruit flavors in the wine. There was an unmistakable foxy note that derived from the hybrid grapes, no doubt. But it wasn't overwhelming; in fact it rather suited the mix of flavors in the wine. Most of the flavors matched the aromas described above. The mix of fruit, herbs, and spice was quite nice.

But here is where the trouble begins, because this wine also carried a few distinct off-flavors. Not overpowering, but unmistakable... There was a bitter, medicinal note to the wine, a bit of a sour green flavor, and the distinct hint of mold and must, like cardboard long abandoned in a dank basement. What happened? It's impossible to know for certain. It's possible that this single bottle became "corked." But the seal appeared to be good and there were no signs of oxidation in the form of browning; nor were there any off-aromas coming from the cork itself. Perhaps some of the grapes had seen a bit too much action by *acetobacter* bacteria before fermentation took off, leading to the formation of ethyl acetate during fermentation. Perhaps a batch of oak chips that had gone bad or were bad to start with were used during aging, leading to the formation of trichloroanisoles (TCAs). Perhaps it was a combination of issues that pushed the off-flavors over the sensory threshold. Whatever the exact cause or causes, the unfortunate truth is that these defects rendered what would otherwise have been an interesting and pleasant wine more or less unacceptable.

The final verdict:

This wine is an interesting blend of flavors and aromas. It's pretty in the glass. Relatively dry and fruity, it could be paired with a variety of foods, either with a meal or with appetizers or snacks. As such, it's a good example of a wine that could be a good seller for many Oklahoma wineries. Unfortunately, the defects in this wine (which in fairness may have been limited to this single bottle) render it better suited to be used as an example of what can go wrong in the winemaking process. Perhaps the take home lesson is that producing quality wines requires a relentless commitment to quality and best winemaking practices up and down the line from vineyard to bottle, whether one is talking about a premium product or an everyday table wine. Another lesson may be that even with that commitment, some batches are going to be problematic.



The Technical Tippler's ranking of an Oklahoma Red Blend: 2 out of 10 flasks (Note: the ranking would have been 6 or 7 out of 10 without the defects).

The Technical Tippler welcomes suggestions for wines to evaluate and evaluations to conduct! Feel free to email suggestions to william.mcglynn@okstate.edu.

The Grape Grower/Winemaker Paradox

Eric T. Stafne

Below is a post from my blog (glog) that several folks thought was worthwhile. So, since not everyone who reads this newsletter subscribes to, or reads, my blog, I thought I would publish it here. These are just my observations and what I think will lead to sustainability in the future for the Oklahoma grape and wine industry. Winemakers who want to make Chardonnay will need to get their product from out-of-state to have a consistent, and quality, supply. However, there are other options that the growers in this state can supply every year. We just need to find that middle ground. Is the wine industry about the wine? Yes, but it is also about the experience. I like to drink wine, but my favorite thing is to try different wines. Maybe I am in the minority, but maybe not. People drink wine for the experience of it — and there is plenty of experiences to be tried outside of the “Noble” varieties. So, take read the post below for more.

While at the OGIC meeting on June 20th, I listened to discussion on the bill that would mandate using Oklahoma fruit for wine (SB 659). Of course this is a great idea — without any reasoning behind it. It is absurd to think that all the needs for 60+ wineries can be met by the grapes and fruit produced in Oklahoma. Not only are there not enough vineyards to supply the grapes, the climatic variability we experience is guaranteed to disrupt the supply to some extent every year. Therefore, supplies from out-of-state are a must at this stage. The industry is too small to depend on Oklahoma-only fruit. Now, that being said, there must be an incentive for grape growers to continue to expand and eventually be able to supply all the need. It all seems so easy — wine makers need grapes, grape growers grow grapes, one supplied the other, problem solved. Yet, this is where the paradox arises:

Wine makers don't want poor quality grapes. Not enough grape growers understand how to produce high quality grapes.

The solution here seems simple, but is rather complex in reality. Education on grape growing is a non-stop endeavor. One never knows everything about grape growing and a new surprise is just around the corner. Quality can go from good to unacceptable in a very short window of time. Many of the growers in Oklahoma are not “professionals” in the field. They do this as a hobby or to gain some extra cash (or a tax break) on the side. They may not live near the vineyard or even visit it every day. Constant interaction with the vines is needed to keep on top of insect and disease outbreaks, as well as the need to drop leaves, shoots, and clusters in a timely fashion. How does a wine maker fix this problem? Be involved. Be very involved in the day-to-day operations of the vineyard. Go out there frequently to observe and feel the plants. Taste the fruit. Take notes. Look closely at the vineyard records (and make sure the vineyard owner keeps good records). Putting the entire burden on the grape grower is not the way to get quality. What does a grape grower want most of all? Grapes and lots of them. But a winemaker needs a certain quality of grape and that may mean diminishing the crop load. The communication must be there to convey what is needed and why. And the winemaker must also keep in mind that every cluster that hits the vineyard floor is lost revenue for the grape growers, so keep that in mind when paying the tonnage fee at the end. Should an Oklahoma grower who did everything you asked and provided the quality you needed get paid more than an out-of-state grower who provided the same material? It certainly would provide some incentive to the grower to continue.

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The Grape Grower/Winemaker Paradox (cont.)

Eric T. Stafne

Wine makers want certain varieties. Grape growers may not be able to produce those varieties consistently (or of high enough quality).

Most wineries want vinifera grapes. Vinifera grapes are recognized as making the best wines. But, they are not the vines that grow best in many places in Oklahoma. The risk that growers undertake by growing vinifera is substantial, much more so than hybrid or American grapes. The cost to produce them is more and the reward at the end of the season in terms of price is more (in most cases).

Is this a sustainable model though? I am not saying that we should throw out all vinifera, but what I am saying is that we need to consider that some hybrid varieties provide benefits. The idea that no one will buy hybrid wine just isn't a compelling case. Other states have vibrant wine industries and produce largely (or exclusively) hybrid wine. There are vinifera grapes that are great in California or Oregon or Bordeaux that are terrible in many places in Oklahoma. I hear stories of how a particular variety is great and is the "one" for Oklahoma. I have heard this about Cabernet franc, Merlot, Riesling, etc. So far, Riesling is the closest, but I'm still not convinced. Vinifera grapes are much more difficult to grow and thus we see the relation to the problem of grape grower education and experience leading to quality, but also to the next issue below.

Wine makers need a consistent supply. Grape growers are at the mercy of the environment for their supply (at least to some extent — enough to make it a considerable issue).

A consistent supply is something a winemaker counts on — the bottles must be filled to be sold. The grape grower also counts on this. No grapes equals no money. We see that the winemaker and grape grower are intrinsically linked by a common product. Yet the climate we live in has a substantial role to play in the delivery of that product. Our continental climate is not well-suited for consistent grape production: extreme cold in the winter, extreme heat in the summer (day and night), hail, poor soils, high humidity, drought, floods, rain during pollination, rain during harvest, spring frosts/freezes, early fall freezes, on and on and on. The challenges are great. Some of these can be mitigated through proper education (choosing the best site, for example). One way is related to the second issue above — variety selection. Hybrid and American grapes have tolerances to some of the climate issues we deal with. For example, some varieties have tomentose leaves thus helping to protect from insect predators. Others have thicker skins and heavy blooms that resist fungal infections on the fruit.

Some are substantially more cold hardy. The climate largely dictates what should and should not be grown. One cannot overcome Mother Nature by desire or will. If one plays by her rules that is the way to continue.

We must continually re-evaluate the future of the industry. I firmly believe there is room for vinifera as well as hybrid and American grapes and the idea that using only vinifera grapes for wine is one that will lead to never having enough grapes in Oklahoma. What is the incentive for growers to take on the greatest risk? A winemaker can always go out-of-state for product, while the grower goes out-of-business. We need to find a middle ground and bridge the considerable gap that exists between winemakers and grape growers in this state. From what I have seen and heard, I believe the OGIC is committed to doing that and I hope so because both winemakers and grape growers stand to benefit from a strong relationship of understanding, compromise, and mutual respect.

Operation: Grapevine Recovery

Eric T. Stafne

The question before us is this — how much damage have grapevines sustained due to the February freeze event? In some cases that is very obvious, especially when the entire vine is dead (I'm looking at you Chardonnay). Now, Chardonnay, as you well know, is not the most cold hardy vine, but it is not the least cold hardy vine. So, why did it do so poorly following the freeze? I can name two things right off the bat; first, the late fall freeze event of 2005 and the Easter freeze of 2007. Damage of this kind can have cumulative or additive effects on a vine. The Chardonnay vines never fully recovered from the 2007 event and were put down completely this year. At Perkins, we experienced a low temperature of -13.5°F , somewhat borderline for vinifera grapes. Some healthy, cold hardy vines will recover, other weak and non-cold hardy vines greatly suffered. The Cabernet franc vines seem to have been able to weather the event without catastrophic damage (too bad the fruit quality is always so poor). Which cultivars look the best so far? Not surprisingly, the hybrids. Hybrids like Frontenac gris, Chambourcin, Cynthiana, Rubaiyat, Traminette, Noiret, and Neptune look good SO FAR. I am not about to say they have made it through this year unscathed. The hot, dry weather coupled with the freeze injury/damaged incurred could make for a cocktail of death. I am starting to see some trees really suffer now that the heat has been cranked up to 11. I suspect more grapevines will be on the way out as well.

At Perkins, Dr. Damon Smith has a black rot trial in place that includes cultivars such as Lemberger, Petit Manseng, and Gruner Veltliner (all vinifera) and Noiret, Rubaiyat, Frontenac gris, and Cynthiana. As I said before, the hybrids look good. The vinifera? Meh. Some vines look fine and others look dead. Below is a photo of a row of Lemberger vines.



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Operation: Grapevine Recovery Cont.

What causes one vine to die whereas the next vine, in the same row, remains alive and looks fine? Ahh, the mystery of life. It likely has to do with health of the vine before the damaging event. Maybe it didn't have adequate moisture (was the emitter plugged at that vine?) or perhaps there was a weed or weeds near it, robbing it of essential nutrients and water. It may have had more disease or been attacked by cane borers or the soil in that spot was not as good. It can be many things or a combination of things that causes things to skirt that line of life and death.

Another photo shows a progression of symptoms, from healthy to weakened to downright sickly. The vine on the right has deep green leaves. The next vine (middle) still has leaves, but the color is more yellowish, indicating that something is not quite right. The two vines up from that one are dead, followed by a nice green vine. Now, all of these vines might be dead by the end of the summer or by next year. The level of sustained damaged is still unknown. We can cut into the cambium and take a look-see, but in my experience grapevines will do what you least expect. And sometimes that is a good thing, and other times, well, not so good.



2011 OSU Viticulture and Enology Website Evaluation Survey

Richelle A. Stafne, Research Specialist, Horticulture and Webmaster, Oklahoma State University

On May 20, 2011 a new research survey was launched to evaluate the Oklahoma State University Viticulture and Enology website. The purpose of the survey is to determine page usage and how to improve the site to meet the needs of the viticulture and enology community. The brief survey consists of eleven questions which range from how often you access the site to improvements or changes you would like to see implemented. Your input as a site user is valuable and we appreciate your time in completing the survey. Every recommendation will be considered. We believe a professional research website is a great tool for getting up-to-date information and news to grape growers, winemakers, and fellow researchers.

Survey Link: http://atrial.qualtrics.com/SE/?SID=SV_eQdQ7yXDGF0NUDG. For easy access, a survey link can be found at the top of each page of the OSU Viticulture and Enology website (www.grapes.okstate.edu). Access problems? Please email me at rich.stafne@okstate.edu. Links were also sent out via Dr. Stafne's Glog and via e-mail to current and past attendees of the Grape Management Course. Our goal is to improve the site by collecting as many survey responses as possible. Anyone who uses the site is encouraged to take the survey. Feel free to forward the link to colleagues and employees who use our website. The survey will run through September 1, 2011.

Step right up! Win a Prize! At the end of the survey there is an option to give us your email address which will enter you in the contest to win a copy of the Handbook of Oklahoma Vineyard Establishment and Management, the Pocket Guide to Oklahoma Grape Diseases, Insects and Other Disorders, as well as the 2011 Midwest Grape and Small Fruit Spray Guide. You must complete the survey to enter the contest. Only one entry per person. The winner will be contacted in September.



Cultivar Spotlight: Sangiovese

Eric T. Stafne

I must confess that ‘Sangiovese’ is one of my favorite wine grapes. I really like Sangiovese as a varietal wine and in Chianti as well. It is an intriguing cultivar for Oklahoma because it is a *Vitis vinifera* grape from Italy and seems to tolerate our hot temperatures well enough. But, it has some extremely detrimental traits that make it a probably “no-go” as a red wine cultivar in most of Oklahoma. Sangiovese tends to produce large clusters and lots of them. This leads to overcropping situations if the crop load is not properly managed. Overcropping a vine exacerbates vine stress and can manifest as reduced root system size, poor winter hardiness, and reduced insect/disease resistance. Overcropping also results in poor quality fruit with difficulty in achieving targets in critical Brix, TA, and pH levels. Another characteristic that makes Sangiovese a difficult vine to grow in Oklahoma is its tendency toward early bud-break. Many years it is only a day or two after Chardonnay. It is frequently affected by frost. The vine is also not very cold hardy during the winter and although not completely killed by the -13.5°F at Perkins this past February, it was significantly injured and will not likely recover to previous levels of production without serious intervention (i.e. starting the vine over or replanting). Sangiovese may have an opportunity to work in SW Oklahoma, but frost will still be an issue there. Overall, it is not a cultivar that I believe will work well for us on a long-term basis. It may be good (or acceptable) in some years but the long-term sustainability to ensure profitability is just not there.



Viticulture & Enology OKLAHOMA STATE UNIVERSITY

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We welcome feedback and suggestions. Any responses can be mailed or emailed to the addresses on the left. We will strive to provide useful, pertinent, and timely information.

Initially this newsletter will be published 4 times per year in January, April, July, and October. If warranted the timing can be amended to better serve the grape growers and wine makers of Oklahoma.



'Vigneron' is the French word for someone who grows grapes for use in wine making.

National Viticulture Needs Assessment Survey

Eric T. Stafne

The national eXtension Grapes Community of Practice is asking for your help in completing a national survey. This will help us determine grower needs and future direction of our resources. The survey is very short and can be completed quickly. Please take just a couple minutes and fill it out. We want and need your input. Follow the link below to fill out the survey:

https://okstatecasnr.qualtrics.com/SE/?SID=SV_agjMhFmvr6f4TMo

The information gathered is anonymous. It will give us good information to provide to the leadership of eXtension and our universities on the direction of our web resource. If you have not heard of www.eXtension.org, www.eXtension.org/grapes, or www.eviticulture.org please take a look. More information is available on page 2 of this newsletter.

Thank you for helping us create better resources for grape growers on a national and international scale.